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Mortgage Finance and Security of Collateral

This paper sets out to discuss the interference between mortgage finance and collateral security by using the Danish mortgage financing model as an example, because it exposes the naked relation between credit risk and mortgage finance. Moreover, the Danish mortgage finance system opens for a discussion of the role of security of collateral in a development perspective through its 200 years long history.

The financing model is still of high actuality due to its comparative advantage with other financing systems as documented in international studies. The system is recommended both as an option in emerging markets (UN-ECE 2005) and as a possible model for remedying failures in mature housing finance markets.

The real sector and the capital market differ fundamentally in mature and underdeveloped credit markets. Developing economies face a gigantic lack of financing for urbanization due to the absence of formal and transparent property markets. It is suggested that development policies in land administration need to be revised in order to support a widening of credit markets and effectively serve pro-poor policies

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Danish Mortgage Finance in brief

A presentation of the Danish Mortgage Finance system will always include a reference to its unique 200-year long history (Realkreditraadet, 2010). The Danish mortgage finance model is based on the balance principle that originated from Germany, and was first applied in Copenhagen in 1797.

The society went through a transition from a largely subsistence based agrarian economy in the beginning of 19.th century towards specialization, urbanization and a money economy leading to an increasing demand for credit in the latter part of the century. As soon as the first mortgage credit act was passed in 1850, mortgage credit associations spread fast across the country prior to the existence of local banks.

Mortgage Credit associations were originally formed as democratically organized associations with borrowers as members and owners. The underwriting principle of potential borrowers was entirely based on assessment of the property value, not on underwriting of the applicants' 'bankability'. Hereby, the system opened the way for enterprising individuals to work their way to prosperity irrespective of their background. Collateral security served as a sufficient guarantee for the credit.

The founding ideas of the mortgage finance system were fully market based, but embedded in a social structure of mortgage credit associations with elements of solidarity coverage. Borrowers carried joint and several liability for outstanding debt against the mortgage association in addition to the collateral of their individual mortgages, a layer of security now replaced by other types of

capital coverage. The solidarity clause was rarely invoked but impacted on the practices of associations, and strengthened trust in the system.

Mortgage financing through mortgage credit associations grew steadily by the end of the 19th century to reach a high level of outstanding credit already prior to WWI. The system has continued to supply credit to different sectors of the economy, although residential credit is now dominating the market. The total volume of the mortgage market in Denmark currently exceeds GDP.

Financial sector reforms took place in the latter part of the 20th century upon entering the European community. Mortgage credit associations were consolidated in the 1970's and restructuring continued after 1989, as new legislation opened for a conversion of mortgage credit associations to shareholder companies. The core of the mortgage finance system, securitization based on the balance principle, has stayed intact until adjusted due to EU regulations in 2007 (Haldrup, 2011).

Performance during crisis

Several bobbles and bust in the property market and economic crisis have brought mortgage finance systems to a test. Changes in mortgage finance legislation may also assert a strong influence on the market, and even contribute to booms and busts in the housing market.

The relation between mortgage finance, the real sector and the macro-economy has demonstrated its awesome power during the global financial crisis ignited in 2007 by the sub-prime crisis in the US, but not all markets have been hit in the same way.

Each severe crisis has given reason to re-exa-

mine the Danish mortgage credit system, as was the case during the crisis in the 1930's resulting in intermediate crisis legislation and an overhaul of the mortgage credit act. Borrowers and investors suffered, but the losses of mortgage credit associations were relatively low.

Even when the global financial crisis in September 2008 stopped the issue of real credit in many other countries, Danish Mortgage Banks continued issuing credit and bonds. Danish covered bonds were safe and liquid investments even during the most severe phase of the crisis. However, crisis legislation supported the system indirectly on the side of institutional investors.

In the wake of every major crisis has followed a scrutiny of the finance system and the market in order to identify the shortcomings of the system and suggest approaches to mitigating a future crisis. In this way every crisis has formed a learning lesson and triggered adjustments of legislation and practices.

The Mortgage Credit system escaped detrimental losses during periods of crisis, but during booms and bust in the property market it was apparent that 'valuation' is the Achilles heel of mortgage finance. Valuation is not only a technicality, but predicting the future price development forms a challenge especially during a booming market.

The Balance Principle of Securitization

International studies point to the comparative advantages of the balance principle of securitization, whereby each loan is funded through concurrent issue and sale of bonds on the capital market on terms mirroring the loan conditions. The proceeds

of the sale of bonds determining the effective interest rate, which have always been determined by the market.

Specialized mortgage credit institutes, originally mortgage credit associations, act as market intermediaries that issue and stay responsible for the loans and bonds, which ensure an alignment of risks and responsibilities. The simple and transparent funding mechanism reduces risks and overhead costs, and ensures a simple cash flow. Standardized loan conditions protect borrowers against predatory lending, while creating transparency in the market for borrowers and investors alike.

Loans are non-callable by the lender, while borrowers have access to early repayment of the loan or refinancing by buying back the underlying bonds at their market rate. Borrowers are not locked in and can follow the market up and down, a feature with counter-cyclical qualities.

Mortgage credit institutes are mono-line businesses not permitted to engage in (other) banking or investment activities. Lending is regulated by stringent provisions on maximum LTVs and conservative appraisal rules, and capital coverage requirements, previously in mortgage associations also by elements of solidarity coverage.

The system is strictly regulated through the Mortgage Credit Act dedicated to protecting investors in mortgage securities, but hereby it is also serving the borrowers' interests by attracting capital at lower cost.

Investors have a claim against the Mortgage Institute, covered by tiers of security in base capital and reserve-funds of the issuer. In turn the Mortgage Credit Institutions have secured collateral in the pledged properties.

Mortgage securities, also called covered bonds, have a status at the level of sovereign debt securities and are traded on the stock exchange. In this way the system has secured a huge flow of capital to the Danish society throughout its century long history, and has provided relative stability of credit supply also during periods of crises.

The Danish mortgage credit system peels off layers of financial risks from the mortgage credit institution. Through the balance principle of securitization are mitigated a number of risks pertaining to other mortgage finance models (currency risk, interest rate risks, liquidity risks of mortgage credit institutions, etc.). As a result the main remaining risk held by the mortgage credit institute is the credit risk: the risk that borrowers cannot or will not pay their debt, and in case of default, that the value of the underlying collateral does not cover the outstanding debt.

In consequence the focus of risk analysis is on how the mortgage credit institutes depend on various aspects of collateral security: Legal protection of property rights and mortgage pledges, assessment of economic value of collateral, procedural access to the collateral, property information, etc.

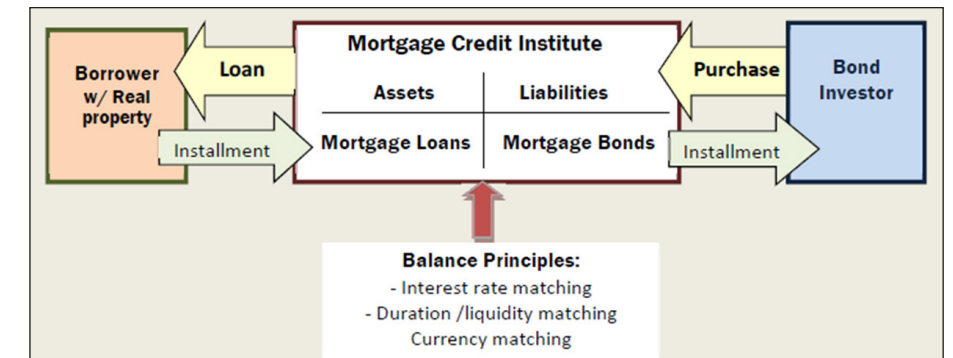


Figure 1. The Balance Principle of Securitization (Source IMF, 2006, p. 5)

Framework Conditions and Security of Collateral

The financial system depends on the regulatory framework and supportive legal and administrative infrastructure in respect to the functioning of both the capital market and the real property market.

Security of collateral rests on legal protection of pledges, clean property titles and associated services facilitating mortgage pledging, e.g., by keeping down transaction costs and risks. The property registration system is not only a precondition for the functioning of the mortgage finance system, but mortgage pledging has become the dominant form of transaction in the legal registry. The high level of remortgaging activities constitutes a lucrative source of public revenues. Indeed the total revenues of the registration activities exceed the running costs of the whole court system in Denmark (2008).

Where these legal functions are in place, security of collateral is hinged on the factors determining collateral value, especially conservative valuation practices and prudent loan limits (Maximum Loan To Value, LTV) leaving a safety margin for future fluctuations in the market value.

A critical precondition for a functioning mortgage market is effective foreclosure required for ensuring collateral security, but also to serve as part of a commitment mechanism for disciplining the mortgage market. Foreclosure has been effective in Denmark, since the mortgage system was introduced. The level of foreclosure has been relatively low, even if Danish property owners have a high level of indebtedness.

In contrast ineffective foreclosure dries out investors' interest in the market and increases risks, thus the cost of credit. For these reasons effective foreclosure is mandatory for widening the access to real credit.

Lessons learned for developing credit markets

The benefits of having indisputable and transparent property rights with effective enforcement have paid off in Denmark by reducing the risks, and thus by diminishing the cost of credit. The access to credit was widened both through redu-

ced costs of credit and through collateral security eliminating the need for underwriting of personal standing. It is therefore argued that security of collateral was leading the way to democratization of credit.

The benefits have foremost been derived from the impeccable legal registry functions and effective foreclosure procedures, while the mechanisms of land supply for urban development have played a central role for affordability and quality of housing in Denmark.

The Danish case illustrates how a good cycle of events began by providing market based mortgage finance for properties of sufficient collateral value to serve as security for mortgage pledging.

From the very start the Danish mortgage system targeted holders of property with sufficient collateral value, not smallholders at the lowest subsistence levels. While the credit market was at first developed through the upper and middle market segments, a larger credit volume generated economy of scale, and investors' trust in the system grew as reflected by better selling rates of the mortgage bonds in the capital market. Hereby the cost of credit was reduced and the upper market segments opened the way for credit to smaller properties.

Eventually this story is suggesting development of both formal property markets and credit from the middle sector as an effective pro-poor strategy. Increasing volume provides economy of scale, lowering market risks reduce interest rates, and both factors contribute to lowering the cost of credit. It is therefore argued that democratization of credit goes through an expansion of the middle market segment, combined with legal safeguards and effective foreclosure. Titling of a critical mass of properties in the upper and middle sectors could potentially create positive dynamics to the benefit of the whole market.

A better understanding of the marginal dynamics of the combined factors of property rights security and mortgage finance could possibly lead to new strategies for meeting the gigantic need for housing credit around the world.